

REMARKS

By the present amendment, claims 1, 10, and 15 have been amended; claim 2 has been cancelled. Claims 22 to 25 have been added. Upon entry of the present amendment, claims 1 and 3-25 will be pending in the application.

The amendment to claims 1, 10, 15 is supported by original claim 2 and the disclosure of an adsorption group to silver halide at p.11, line 12 to p.12, line 10, and p.18, line 25 to p.19, line 10, and the disclosure about a reducing group at p.33, lines 10 to 15.

Claims 1-21 were rejected under 102(e) as being anticipated in view of US2004/0126723 to Watanabe.

By the present amendment, the current application is a continuation-in-part of the Watanabe application; therefore it is respectfully requested that this rejection be withdrawn.

Claims 1-21 were rejected under 102(e) as being anticipated by Oka'288.

By the present amendment, the current application is a continuation-in-part of the Oka '288 application; therefore it is respectfully requested that this rejection be withdrawn.

Claims 1-21 were rejected under 102(e) as being anticipated by Ohzeki'454.

By the present amendment, the current application is a continuation-in-part of the

Ohzeki'454 application; therefore it is respectfully requested that this rejection be withdrawn.

Claim 1-2 were rejected under 102(e) as being anticipated by Yang '450, or under 103(a) as being obvious over Yang '450.

The "blocked color forming material" in Yang is a coloring material having a developing part and a heterocyclic part, wherein the heterocyclic part is a chromophore. The developing part is a reducing group, but the heterocyclic part does not have an adsorption ability because the heterocyclic part is blocked at an adsorption site, so that the blocked color forming material in Yang is different from a compound having an adsorption group to silver halide and a reducing group as set forth in the present invention.

As the function of a color forming material generally is not related to adsorption to silver halide, a compound having an adsorption group to silver halide and a reducing group as in present invention would not be obvious from the disclosure of Yang.

A phenolic activating compound in Yang is a compound to activate coloring by a blocked color forming material. Yang does not disclose or suggest an effect of accelerating in silver development and increasing a sensitivity of silver halide and improving a stability of photothermographic material before using for image formation by combination of a compound having an adsorption group to silver halide and a reducing group and a development accelerator as in the present invention. Therefore, it is respectfully requested that this rejection be withdrawn.

Claim 1-2 were rejected as being anticipated by or being obvious in view of Katoh '880 et al.

Claim 4-9, 14-21 were rejected as being obvious in view of Katoh '880 et al. and further in view of Uytterhoeven et al., Siga et al., Toya et al., and Matsumoto et al.

Katoh '880 discloses a precursor compound which is designed to release a photographically useful compound only by heating to a determined temperature. As shown in Compound D-1 to D-50, a mercapto group is blocked by a reducing group in the precursor compound. As the precursor compound does not have any free mercapto group, it does not have an adsorption capability to a silver halide.

Consequently, a precursor compound disclosed in Katoh'880 is different from a compound having an adsorption group to silver halide and a reducing group as set forth in the present invention.

The compound having an adsorption group to silver halide and a reducing group of the present invention is effective in a situation where it is adsorbed to silver halide before imagewise exposure of a photothermographic material by increasing a sensitivity of silver halide and improving a stability of the photothermographic material before using for image formation. The precursor compound disclosed in Katoh'880 is blocked in a mercapto group before heating in development. As a precursor compound disclosed in Katoh does not have a function of a compound having an adsorption group to silver halide and a reducing group as in the present invention, such a compound is not taught or suggested by the Katoh disclosure.

A nucleating agent in Katoh is a compound to promote ultra-high contrast in tone;

in contrast, the development accelerator in present invention is a compound to make an image at high density in a shorter developing time without bringing high contrast. Also, the nucleating agent in Katoh has a different chemical structure than the development accelerator in present invention. The secondary references fail to cure the deficiencies of Katoh, therefore, it is respectfully requested that this rejection be withdrawn.

Claim 10-14 were rejected under 35 U.S.C. 103 (a) as being unpatentable over the combination of Itoh '680, Toya '126, Mifune '218, and Katoh '880.

Claim 13-14 were rejected as being obvious over a combination among Itoh '680, Toya '126, Mifune '218, Katoh '880, and Siga '889.

Mifune discloses a compound having an adsorption group to silver halide and a reducing group that increases a sensitivity in a conventional wet processed silver halide photosensitive material, but does not disclose nor suggest an application of the compound to a photothermographic material.

A compound having an adsorption group to silver halide and a reducing group in present invention can increase a sensitivity and also improve a stability of photothermographic material before using for image formation by combination of a such a compound and a development accelerator in taught by the present invention (and as shown in Table.16). Mifune does not disclose or suggest a development accelerator or such combination.

Also, Mifune does not disclose or suggest unexpected results by a combination of a compound having an adsorption group to silver halide and a reducing group and a silver behenate of a special range of behenate content and a polymer binder of a special range

of Tg as shown in Table 21, or a combination of the compound and a special polyhalogen compound as shown in Tables 22 and 23.


The other references separately disclose a range of silver behenate, Tg range of a polymer, polyhalogen compound, but provide no motivation to combine these components and a compound having an adsorption group to silver halide and a reducing group to obtain the present invention. Therefore, it is respectfully requested that this rejection be withdrawn.

Claims 1-2, 5-6, and 15-20 were provisionally rejected for obviousness-type double patenting in view of claims 21-30 of U.S. Patent Application 10/633,253.

A terminal disclaimer for application 10/633,253 accompanies the present response; therefore it is respectfully requested that this rejection be withdrawn.

In view of the foregoing amendments and remarks, it is respectfully submitted that all of the claims currently pending in the application are in condition for allowance. Early and favorable action is respectfully requested.

Respectfully submitted,


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